



An Update on Cesar Chavez Traffic

Presented to Downtown Commission

May 16, 2018

Austin Transportation Department





Overview of the Signal Retiming Program

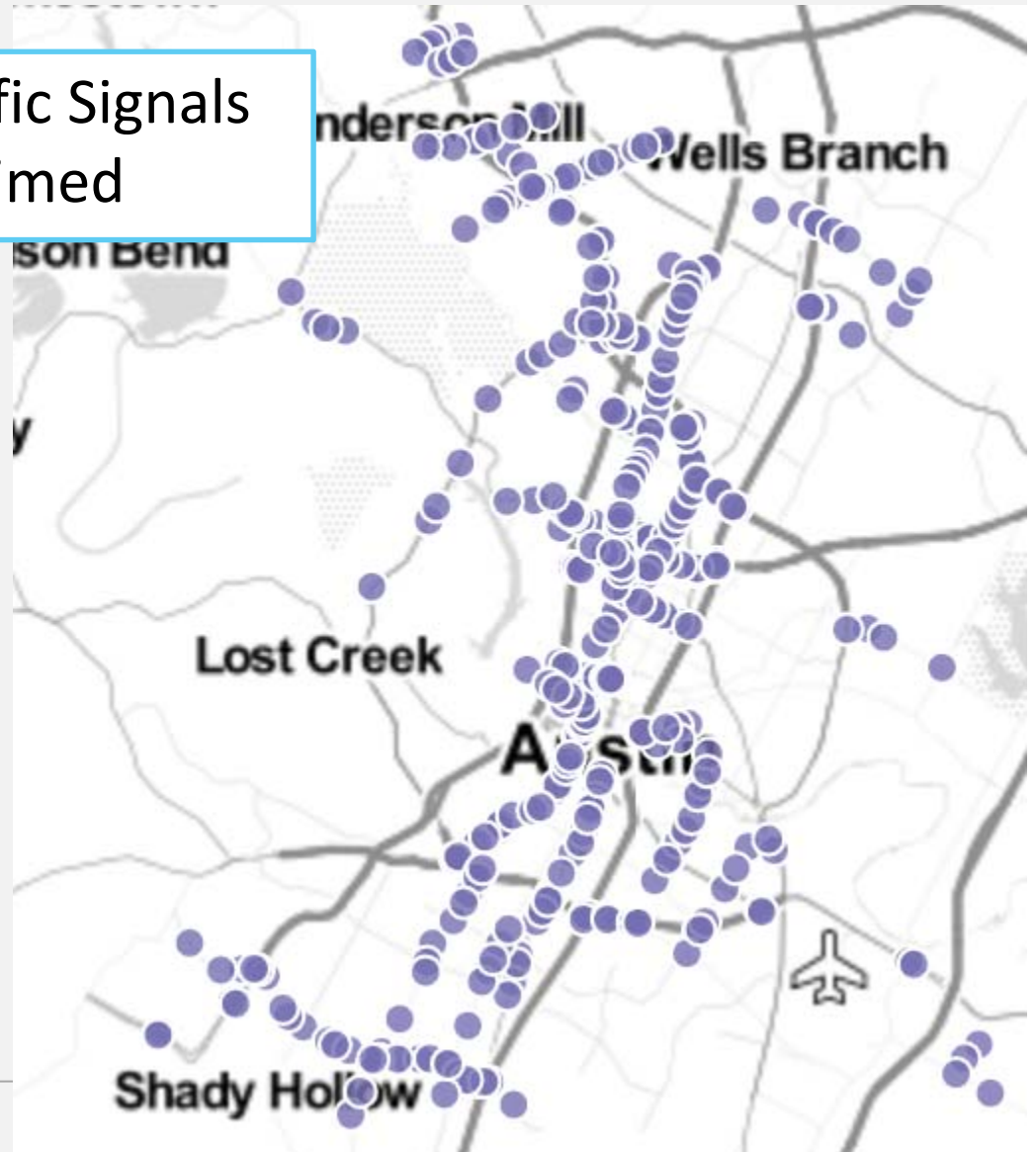
FY 17 Annual Retiming Program

Travel Time Reduced ⓘ

7.7%

FY2017 Goal: 5.0%

348 Traffic Signals
Retimed



FY 18 Annual Retiming Program

1/3 Traffic Signals
Planned for Retiming





Cesar Chavez Street Retiming

The Process

Study the Problem

- Field observations
- Data analysis
- Citizen & property owner feedback

Solutions

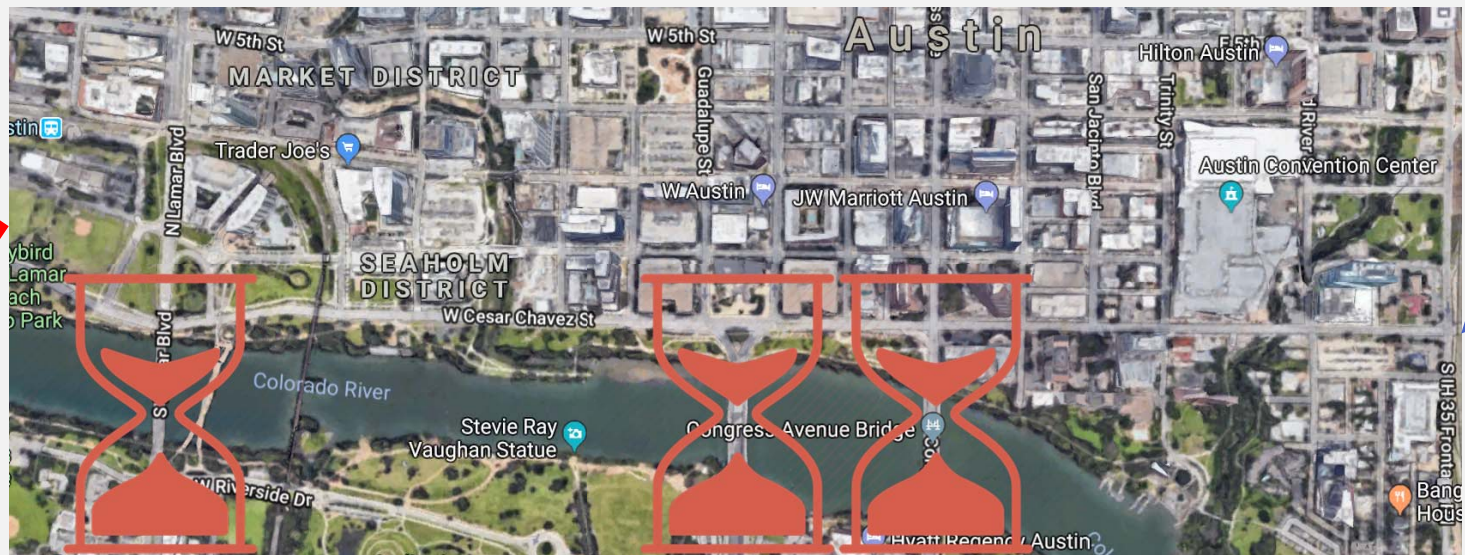
- Signal retiming
- Striping changes
- Intersection redesign



Context of the Corridor

- Mopac Express Lanes Traffic
- IH 35 Bottleneck
- Limited river crossings
- Main street throughput vs. side street access

**MORE
TO/FROM
MOPAC**



Capacity of a Roadway

- Capacity
 - The amount of vehicles that can possibly travel on a roadway
- For each lane:
 - 1 vehicle every 2.5 s \rightarrow 1440 veh/hr
 - 40% of the cycle for one direction means each lane can accommodate 575 veh/hr
 - We have 2 lanes E/W on Cesar Chavez
- 1150 veh/hr in one direction
 - IF they have somewhere to go
 - IF everyone is driving attentively
 - IF there's no lane blocking
- Cesar Chavez regularly experiences demand in the neighborhood of 1500 veh/hr



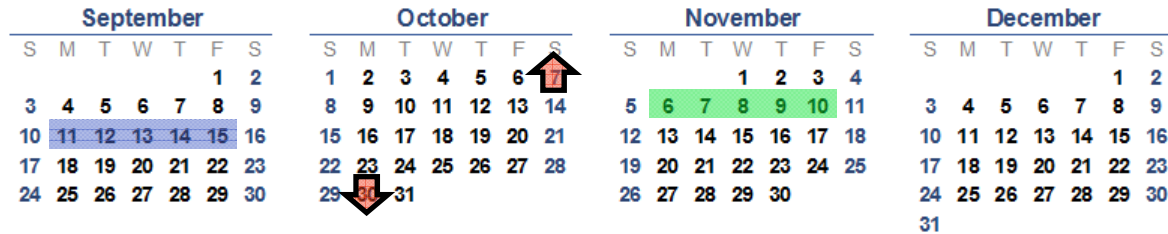
The Strategy

- AM peak:
 - Raise the cycle length to provide fewer long stops
 - Prioritize progression and high volume turns that access major employment buildings
- PM peak:
 - Clear a few of the critical blocks each cycle
 - Prioritize daily commuters leaving the area





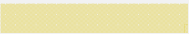


Timeline & Analysis Weeks

2017



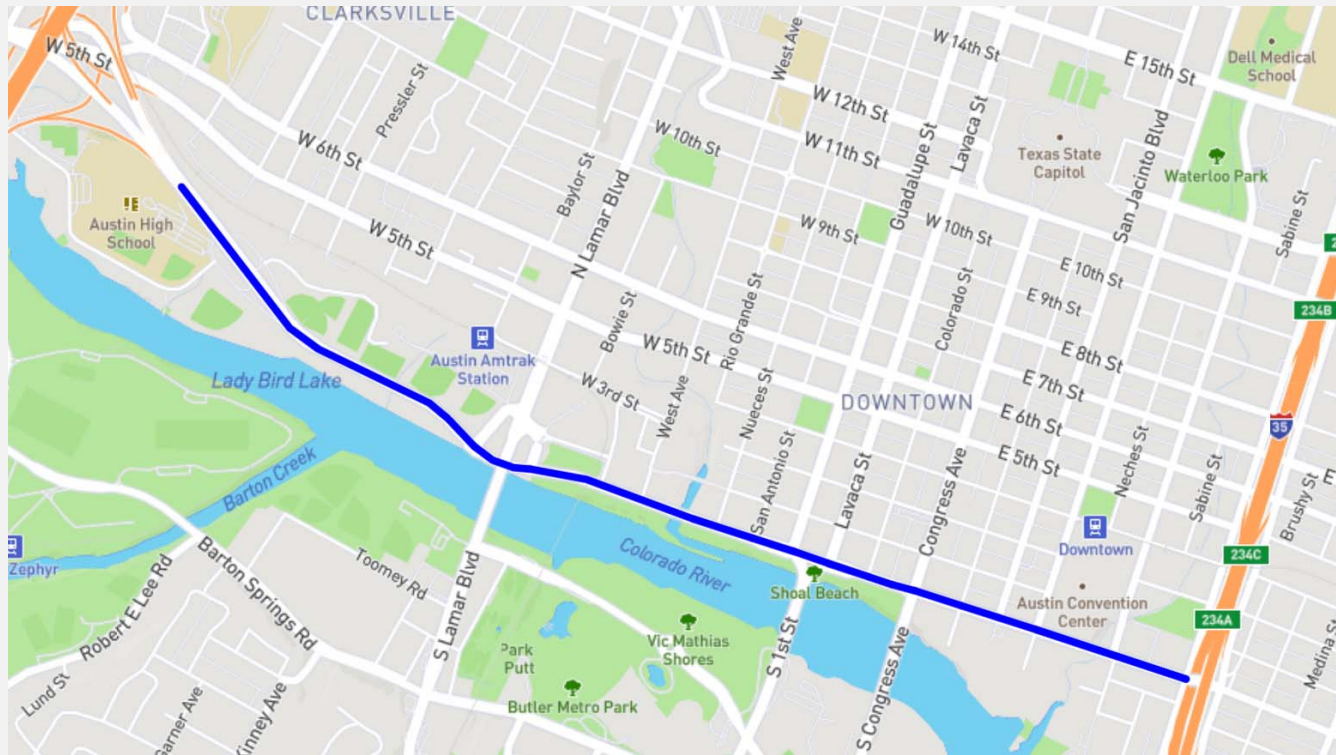
2018



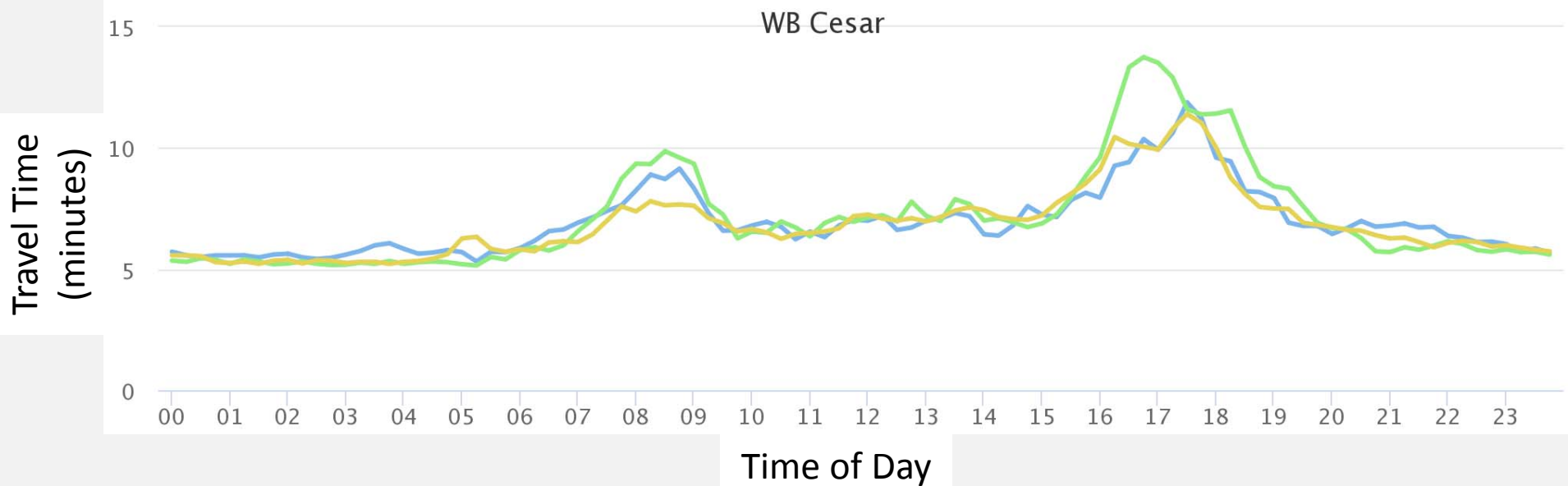
-  Before Express Lanes Opened
-  After Express lanes, before retiming
-  After Cesar Chavez is retimed
-  NB Express Lanes Open
-  SB Express Lanes Open



Study Area (Probe Data)



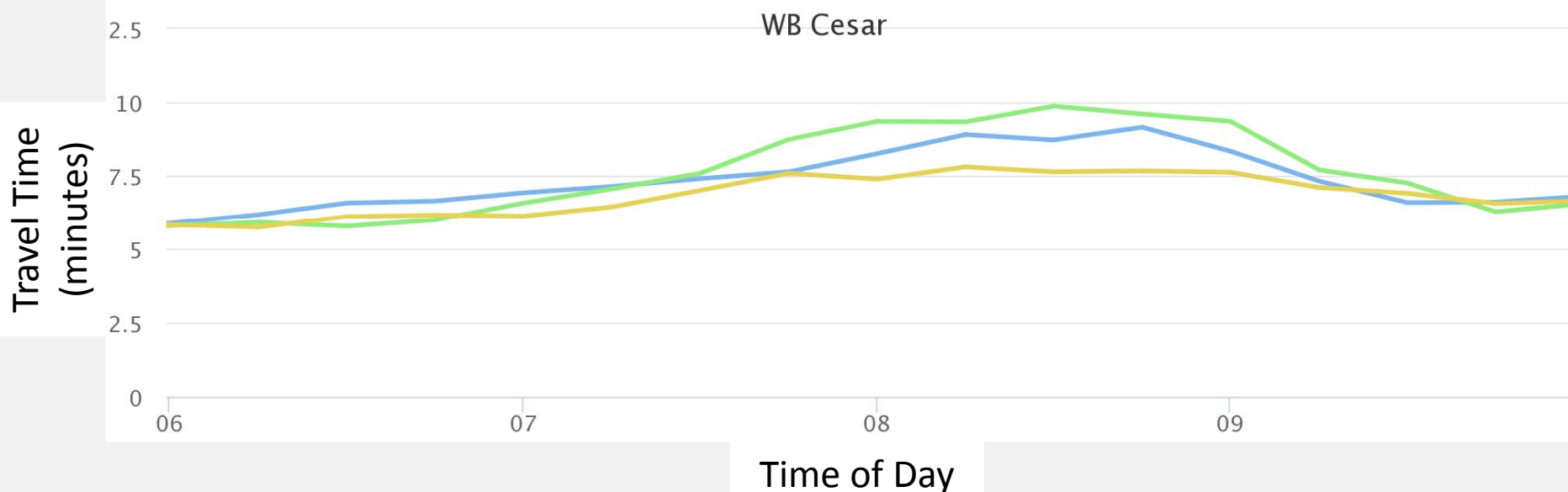
Cesar Chavez Travel Times WB



- Before Express Lanes Open
- After Express Lanes Open, Before Timing Adjusted
- After Signal Timing Adjusted



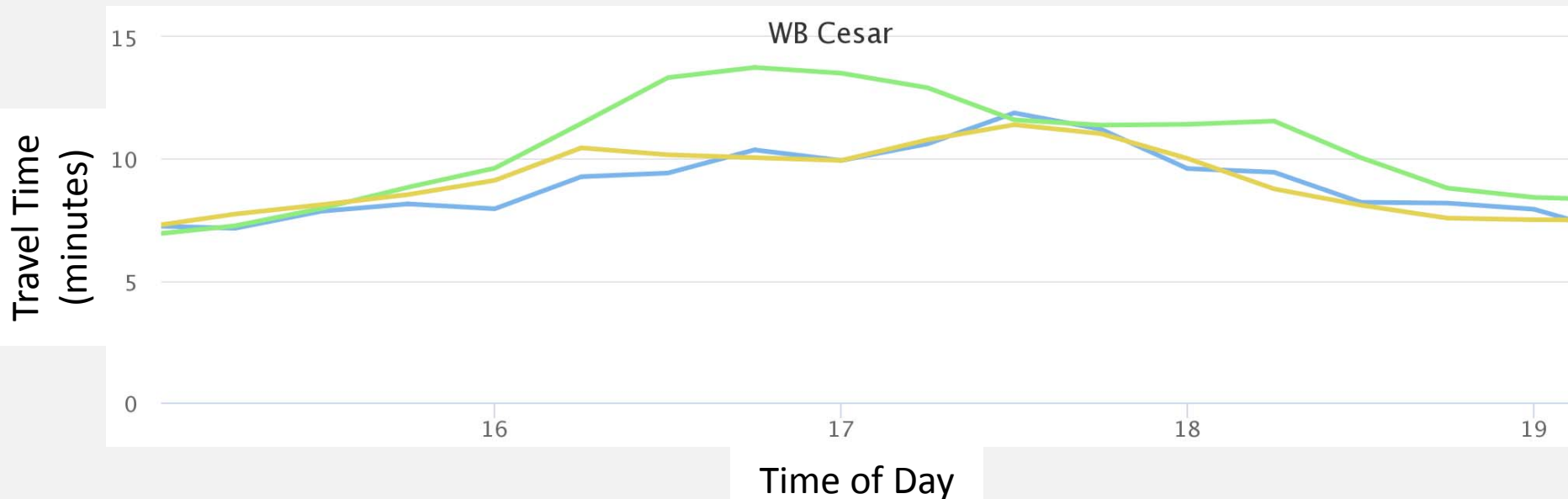
Cesar Chavez Travel Times: WB in the AM



- Before Express Lanes Open
- After Express Lanes Open, Before Timing Adjusted
- After Signal Timing Adjusted



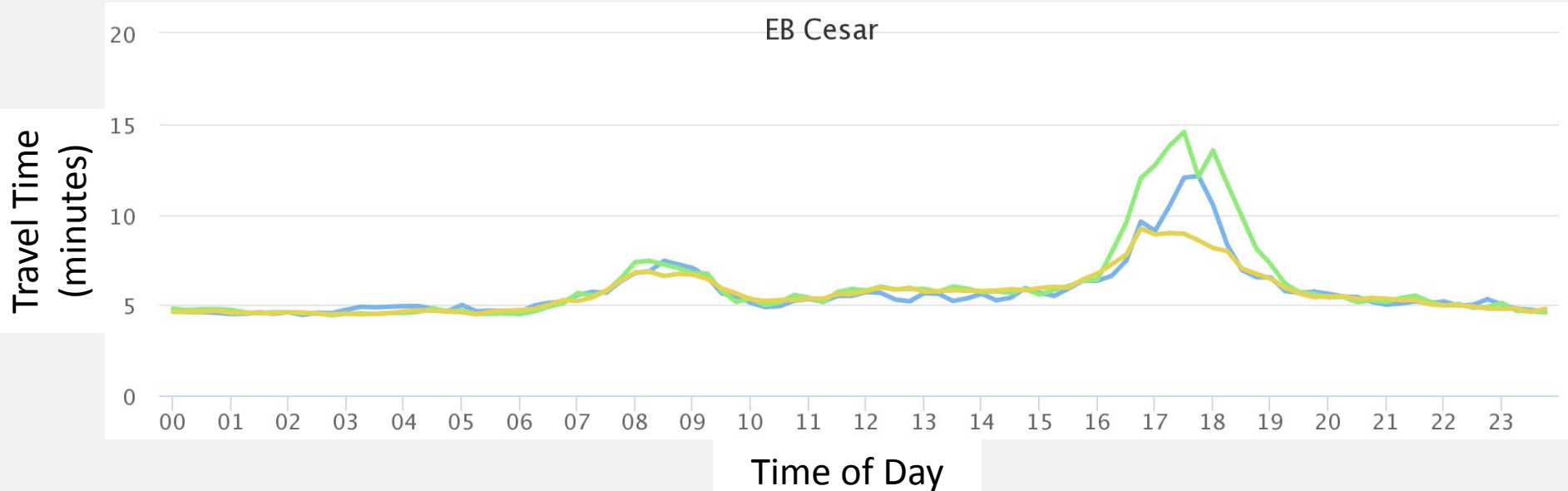
Cesar Chavez Travel Times: WB in the PM



- Before Express Lanes Open
- After Express Lanes Open, Before Timing Adjusted
- After Signal Timing Adjusted



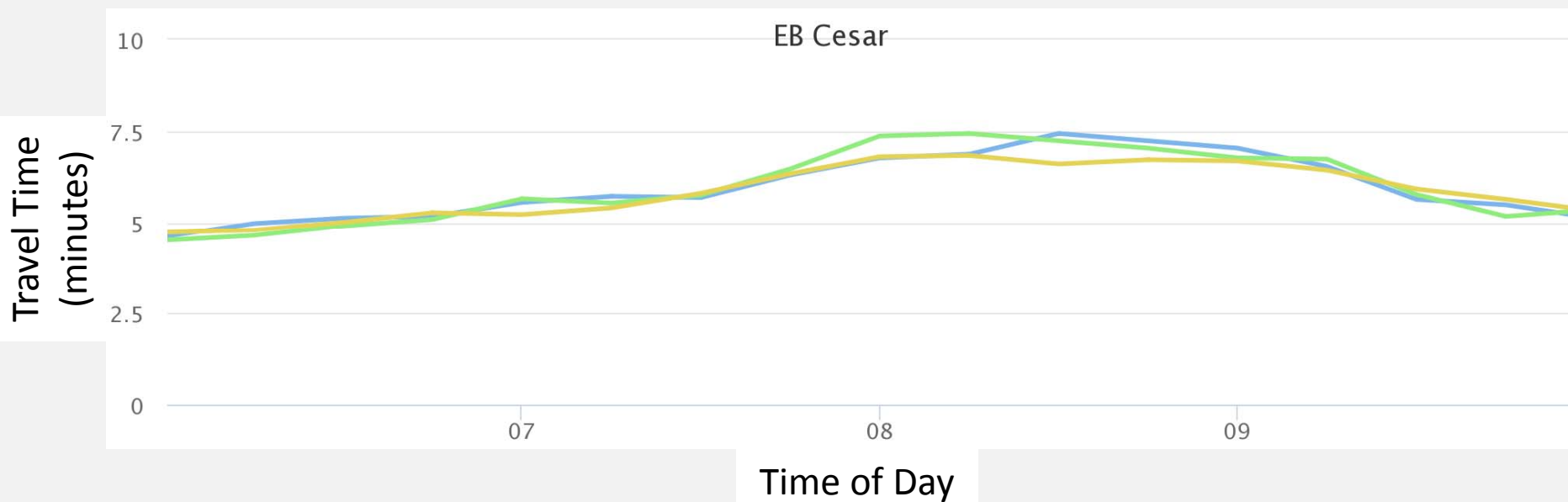
Cesar Chavez Travel Times EB



- Before Express Lanes Open
- After Express Lanes Open, Before Timing Adjusted
- After Signal Timing Adjusted



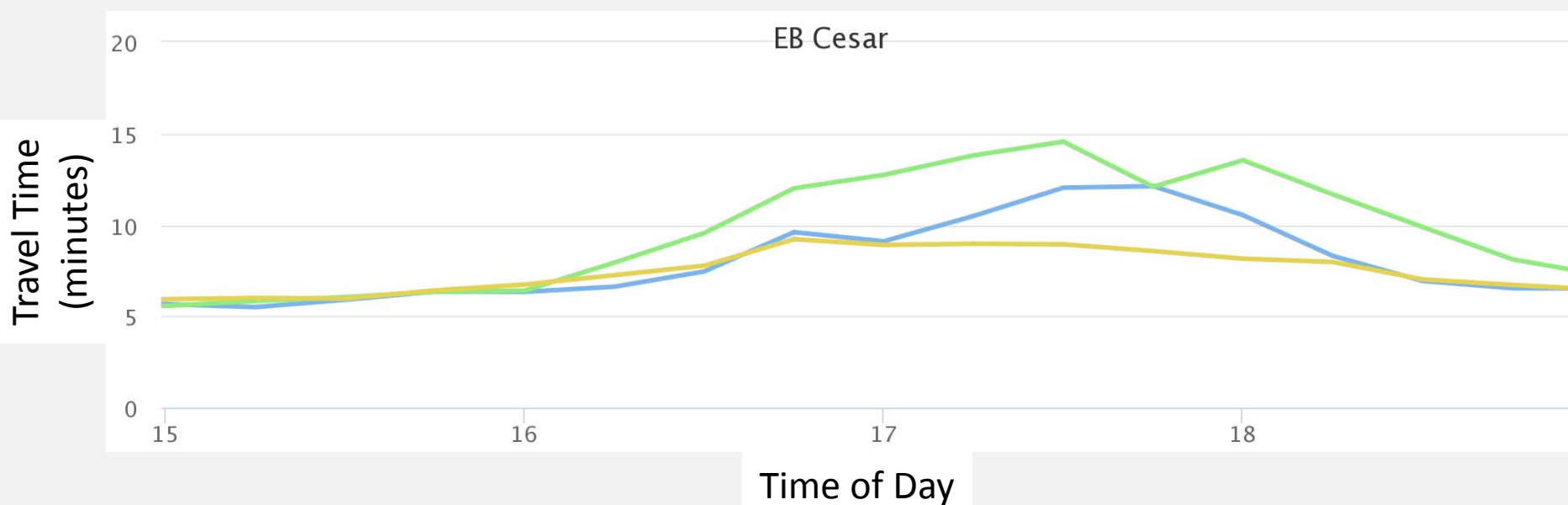
Cesar Chavez Travel Times: EB in the AM



- Before Express Lanes Open
- After Express Lanes Open, Before Timing Adjusted
- After Signal Timing Adjusted



Cesar Chavez Travel Times: EB in the PM



- Before Express Lanes Open
- After Express Lanes Open, Before Timing Adjusted
- After Signal Timing Adjusted



Roadway Modifications (*under evaluation*)

- Cesar Chavez & BR Reynolds (west of Lamar)
 - Near-term: Restripe to provide better storage for EBL
- Cesar Chavez & South First Bridge
 - Long-term: Add capacity and separate phase for NBL movement
- Cesar Chavez & Congress
 - Near-term: Restripe WBL to have full block turn lane instead of partial, reevaluate need for dynamic lane assignment in PM peak
- Cesar Chavez side streets
 - Evaluate critical locations that are now able to accommodate NB or SB left turn signal heads



Alternate Solutions

- Flexible work schedules
 - 7am-4pm and 9am-6pm
- Telecommuting
 - Try working just a few hours from home a week
- Transit/Bike/Walk

These options not only get you out of traffic, they help the rest of the commuters who don't have the same flexibility



Thank you.

Robin Osborne, PE

Traffic Signal Engineer

Arterial Management Division

Austin Transportation Department

